WHAT IS CLAIMED IS:

1. A substantive coating for dental tape wherein said coating: contains a crystal control substance is saliva soluble is substantially crystal-free

comprises from between about 20% and about 120% by weight of said tape has a flake value of less than about 20 and a release value of about 90 to 100.

2. A substantive coating for dental tape according to Claim 1, wherein said crystal control substance is selected from the group consisting of long chain fatty alcohols or mixtures thereof and liquid surfactants having the standard formula:

$$R_1O-(CH_2CH_2O)_w$$
 (OCH₂CH₂)_x-OR₂
CH-(OCH₂CH₂)_y-OR₃
|
CH₂-(OCH₂CH₂)_z-OR₄

wherein R_1 to R_4 represent H or aliphatic acyl groups having from 10 to 30 carbon atoms.

3. A substantive coating for dental tape according to Claim 2, containing an active, chemotherapeutic ingredient selected from the group consisting of stannous fluoride, potassium nitrate, triclosan, chlorhexidine, cetylpyridinium chloride, domaphen bromide, metronidazole, doxycycline, aspirin and mixtures thereof.

4. A method for treating interproximal and subgingival sites in the oral cavity comprising flossing said sites with a coated monofilament dental tape having a substantive coating, wherein said coating:

contains a crystal control substance,

is saliva soluble,

is substantially crystal-free,

comprises from between about 20% and about 120% by weight of said tape, and has a flake value of less than about 20 and a release value of about 90 to 100.

- 5. A method for treating interproximal and subgingival sites in the oral cavity according to Claim 4, wherein said coating contains an active ingredient selected from the group consisting of stannous fluoride, potassium nitrate, triclosan, chlorhexidine, cetylpyridinium chloride, domaphen bromide, metronidazole, doxycycline, aspirin, other non-steroidal anti-inflammatory drugs and mixtures thereof.
- 6. A method for treating interproximal and subgingival sites in the oral cavity according to Claim 4, for the purposes of mitigating, curing or otherwise affecting systemic diseases which are caused or exacerbated by poor oral health such as heart disease, diabetes, tobacco-use related disease, low-birth weight babies, immuno-compromized patients,

wherein said coating contains an active ingredient selected from the group consisting of stannous fluoride, potassium nitrate, triclosan, chlorhexidine, cetyl- pyridinium chloride, domaphen bromide, metronidazole, doxycycline, aspirin, other non-steroidal anti-inflammatory drugs (NSAIDS) and mixtures thereof.

7. A method for physically removing subgingival biofilms from interproximal and subgingival sites in the oral cavity comprising flossing said sites with a coated monofilament dental tape having a substantive coating, wherein said coating:

contains a crystal control substance is saliva soluble is substantially crystal-free

comprises from between about 20% and about 120% by weight of said tape has a flake value of less than about 20 and a release value of about 90 to 100.

8. A method for manufacturing a coated monofilament dental tape containing a substantive coating that:

contains a crystal control substance is saliva soluble is substantially crystal-free

comprises from between about 20% and about 120% by weight of said tape has a flake value of less than about 20 and a release value of about 90 to 100,

said method comprising the steps of:

- a. introducing said tape to a loading means containing said coating which is fluid and maintained substantially uniform, while being held at a temperature above the melting temperature of said coating;
- b. removing excess coating from said tape by doctoring or calendering said excess coating off said coated tape after coating, and
- c. cooling said coated tape and winding the same onto master spools
 prior to bobbin winding.
- 9. A substantive coating for dental tape according to Claim 2, wherein the dental tape is a monofilament tape selected from the group consisting of PTFE, non-PTFE, elastomeric, polycomponent and other polymer monofilament flosses and mixtures thereof.